



What Are The Sustainability Credentials of EPS?

Environmental performance

Production Impacts

Springvale EPS Ltd uses advanced 'clean technologies' and operate to strict environmental management procedures.

EPS is 98% air. It uses no CFCs or HCFCs in manufacture and all emissions are controlled strictly within environmental regulatory frameworks which apply in the UK and EU.

EPS brings considerable energy and resource-saving benefits. Using less than 0.1% of global oil as a feed-stock, it can save up to 200 times its own resource in thermal energy saving.

All energy, heat and water inputs at manufacture are strictly monitored and maximum use is made of re-use and recycling on a closed loop basis wherever possible.

The manufacturing process does not produce residual solid waste from the production process. All process waste, off-cuts etc, are recycled into the production process.

The inherent light weight of EPS makes it the lightest of all construction materials in common use - thus helping minimise environmental impacts and costs associated with the movement of heavier materials.

ECO points for EPS projected over a 60-year life amount to only 0.043. This indicator is based on accepted robust assessment procedures covering production, transportation and disposal and is a clear measure of the minimal environmental impacts of EPS in construction.

Eco-balances and life-cycle analyses demonstrate that EPS has exceptional merits as a construction material. For example, it has a Zero Ozone Depletion Potential and a low Global Warming Potential.

Environmental Advantages in Use

EPS for commercial construction applications gets the highest possible A-Plus summary rating in the BRE Global Green Guide to Specification (www.thegreenguide.org.uk)

This makes EPS one of the special group of construction materials which have the least possible environmental impacts. In fact, In addition to the A-Plus summary rating, EPS (rated on element no. 815320022) gains 'A' ratings across the majority of the critical environmental performance matrices including:





- Water Extraction A+
- Mineral Resource Depletion A+
- Stratospheric Ozone Depletion A+
- Human Toxicity A+
- Ecotoxicity A+

EPS has outstanding thermal insulation qualities which make it a first choice material for many construction applications. EPS reduces CO2 emissions by up to 50% – making sure it more than offsets its small carbon footprint – giving maximum return for minimal resource.

Heating and cooling of buildings accounts for around half of Europe's total energy consumption. By acting as a highly efficient thermal insulator, EPS can also make a significant contribution to reducing fossil fuel for these purposes. In turn, this helps reduce SO2 and SO3 emissions – a major cause of acid rain.

EPS has extremely low moisture absorption and will never rot. Together with its outstanding ageing performance and chemical resistance, it offers exceptional durability which, in turn, overcomes the need for replacement which would mean resource wastage.

Post-Use Environmental Credentials

EPS is recyclable at many stages of its life cycle. During production, all manufacturing waste can be fully reprocessed by milling or granulating into pellets and adding to the production mix without any detriment to the quality of the finished EPS product.

The integrity and performance of EPS can be expected to last at least the full lifetime of the building in which it is used. At the end of its useful life, however, the fact that EPS does not degrade or deteriorate throughout its life means that it is ideal for recovery and recycling.

By definition, the amount of construction – based EPS found in the domestic waste stream is very small indeed and, in fact, even when we take into account the widespread use of EPS in packaging, it has been calculated that EPS accounts for only 0.1% of Municipal Solid Waste (MSW).

The UK Government is now moving rapidly towards making greater use of clean-burn incineration of waste into energy and hot water for district heating. The number of UK facilities for energy recovery from waste is expected to triple by 2020. As part of the waste mix, plastics (including EPS) play a crucial role in helping achieve the temperatures required for optimum clean-burn efficiency. In the event, therefore, that EPS does not find its way into the recycling stream, its calorific value – can easily be recovered to benefit homes, offices and factories.

Whilst landfill is a last resort, at the end of the preferred waste management hierarchy, users and specifiers of EPS should be reassured that, even when confined to landfill, EPS remains inert and will not decompose to generate greenhouse gases or degenerate to pollute the air, water or ecosystems. It has zero Ozone depletion Potential (ODP) and a low Global Warming Potential (GWP).

